Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
AMENDMENT OF PART 15 REGARDING	)	
NEW REQUIREMENTS AND	)	
MEASUREMENT GUIDELINES FOR ACCESS	)	ET Docket No. 04-37
BROADBAND OVER POWER LINE	)	
SYSTEMS	)	

April 29, 2004

To The Commission

Comments from Gary C. Sutcliffe

As an early adopter of the Internet, being connected since the 1980's when there were fewer than 5,000 computers worldwide on the network, and living in a rural area where my broadband options are limited, I applaud The Commission's efforts to promote broadband in an affordable and widespread manner.

However as a degreed Electrical Engineer with over 30 years work experience, and as a licensed Radio Amateur for even longer (Amateur Extra Class, call sign W9XT), I have grave concerns with the interference potential of Access Broadband over Powerline Systems (BPL).

The Commission, while it is finalizing the Part 15 rule changes for BPL, must ensure the regulations, enforcement, and penalties for non-compliance are strong enough to protect the current users of the HF and lower VHF spectrum. These users include but are not limited to government and military users, local public safety departments, aircraft, short wave broadcast listeners, radio astronomy researchers, and Amateur Radio operators.

I respectfully request The Commission to consider my following comments:

1) In FCC 04-29 The Commission is proposing changing Section 15.109 (Radiated emission limits) paragraph (f) to require BPL providers to provide "adaptive interference mitigating techniques".

   This is a good first step, but does not go far enough. Many users of the HF and low VHF spectrum do not transmit, or transmit only intermittently. Any BPL system must incorporate a system where such users can report interference to the BPL provider and expect the interference will be eliminated in an urgent manner.

2) For paragraph (g) of Section 15.109, The Commission is recommending a database be established to help resolve interference problems. Again, this is a good first step, but the database must also be easily accessible by the general public.

   In addition, BPL systems must implement a form of transmitted identification. With the proposed database it would be relatively easy to identify and contact the BPL provider when interference from adjacent power lines is observed. The signals from a malfunctioning BPL system can also radiate by sky wave propagation causing interference at considerable distances. Without a transmitted ID, locating the offending system will be extremely difficult.

3) FCC 04-29 paragraph 28 covers equipment authorization. With most Part 15 devices the manufacturer is only required to perform tests to ensure their products meet emission limits. This is suitable for most Part 15 devices but is inadequate for BPL equipment.

   Per paragraph 28, proponents of BPL state that such equipment will only be installed by qualified service personnel, thus eliminating the need for certification. That can only be assumed for the provider side of the system. Data will also be transmitted along the power lines *from* the user site. BPL users will have access to the equipment in their homes or businesses. It can not be assumed that even if this equipment were installed properly by qualified personnel, that they would not be moved or improperly re-installed by the users at a later date.

   In addition, BPL systems are broad band by nature and would run continuously as opposed to most Part 15 devices whose emissions tend to be on discrete frequencies and are not used continuously. BPL systems are intentionally generating RF energy that will be coupled to power lines, which if not perfectly balanced will turn the BPL system into a transmitter and an antenna. Therefore BPL equipment must be tested by accredited independent test laboratories like other transmitting equipment, and follow similar certification procedures.

4) Producers of Part 15 equipment must place information in the user manuals about steps that need to be taken by the consumer if their new electronic device causes interference to radio or TV reception. A similar but stronger statement must be made to consumers of BPL service of the potential of interference *to* BPL systems by licensed users of the HF and low VHF spectrum.

Consumers of utility services such as electricity, phone, and cable TV expect very high levels of service with few or no outages. They will expect the same from broad band providers. BPL, being regulated by Part 15, must accept any interference by licensed transmitters. Potential consumers must understand and accept potential outages before they subscribe to such services. It would be unfair for consumers to discover this major BPL limitation after they had already committed to a long term contract.

I thank The Commission for taking the time to consider my comments.

Respectively submitted,

Gary C. Sutcliffe
3310 Bonnie Lane
Slinger, WI 53086